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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/702,293	10/30/2000	Yair Bourlas	ENSEMB.025A	1424

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Ensemble Communication
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EXAMINER	
HAN, CLEMENCE S	
ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/702,293	BOURLAS ET AL.	
	Examiner	Art Unit	
	Clemence Han	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,11,13,15-20,23,27-61 and 63-72* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *9,11,13,15-20,23,40,54 and 72* is/are allowed.

6)☒ Claim(s) *1-3,27-29,33,36,38,39,41-43,47,50,52,53,55-61,63,67,69 and 71* is/are rejected.

7)☒ Claim(s) *4-8,30-32,34,35,37,44-46,48,49,51,64-66,68 and 70* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 1-3, 27-29, 33, 36, 38, 41-43, 47, 50 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allan et al. (US 5,946,313) in view of Agarwal et al. (US Pub. 2004/0179486).

Regarding claim 1, Allan teaches a convergence system for translating data received in an ATM format into a MAC format, the convergence system comprising: a network connection provisioning module 21 to grant or reject requests for a communication channel connection mapping ATM cell addressing bits Into MAC packet addressing fields (Figure 3A); an ATM segmentation module 29 to buffer data which is incoming on the granted connection and to provide portions of the data to other modules; a MAC header module 35 to derive a header for a MAC packet from data in one or more incoming ATM cells having a common destination; and a MAC reassembly module 33 to format data from the ATM segmentation module and the MAC header module into an outgoing MAC data packet having a header and a payload which represents incoming data from one or more ATM cells sharing a common destination (Figure 3A). Allan, however, does not teach selecting a compression method from a plurality of selectable compression methods. Agarwal teaches selecting a compression method from a plurality of selectable compression methods [0118]. It would have been obvious to one skilled in

the art to modify Allan to select a compression method from a plurality of selectable compression methods as taught by Agarwal in order to meet various performance specifications of the system [0118].

Regarding claim 2, Allan teaches including payload data of a plurality of ATM cells having a common destination in the payload of the outgoing MAC data packet and to remove ATM header addressing data from said payload of said outgoing MAC data packet (Column 7 Line 40-41 and Line 60-62).

Regarding claim 3, Allan teaches including payload data of a plurality of ATM cells sharing a common destination in the payload of the outgoing MAC data packet and to remove ATM header addressing data from said payload of said outgoing MAC data packet (Column 7 Line 40-41 and Line 60-62).

Regarding claim 27 and 41, Allan teaches a method comprising:
receiving data in a plurality of first-format packets comprising common header addressing data and formatted according to a first format, the first format being a fixed length format (Column 7 Line 36-38); mapping at least some of said common addressing data to one or more fields of a second-format packet (Column 7 Line 62-64); combining payload data of said first-format packets in a payload of said second-format packet (Column 7 Line 60-62, see Figure 3A); and omitting redundant common addressing data from said payload of said second-format packet (Column 7 Line 40-41 and Line 60-62). Allan, however, does not teach selecting a compression process from among a plurality of compression processes. Agarwal teaches selecting a compression process from among

a plurality of compression processes [0118]. It would have been obvious to one skilled in the art to modify Allan to select a compression process from among a plurality of compression processes as taught by Agarwal in order to meet various performance specifications of the system [0118].

Regarding claim 28 and 42, Allan teaches said first format comprises a fixed-length packet format and said second format packet Is formatted according to a variable length packet format (Figure 3A).

Regarding claim 29 and 43, Allan teaches said plurality of first-format packets comprise ATM cells (Figure 3A).

Regarding claim 33 and 47, Allan teaches second-format packet comprises a MAC packet, and further comprising deriving a MAC header for said MAC packet based, at least in part, on said common header addressing data (Column 7 Line 62-64, see Figure 3A).

Regarding claim 36 and 50, Allan teaches said first-format packets comprise a first format packet header, and further comprising: mapping said first format packet header to a header of said second-format packet (Column 7 Line 62-64, see Figure 3A); and omitting said first-format packet header from said payload of said second-format packet (Column 7 Line 40-41 and Line 60-62).

Regarding claim 38 and 52, Allan teaches disposing a portion of first-format header addressing data common to said incoming packets in a single field of said second format packet (Column 7 Line 62-64, see Figure 3A).

3. Claim 39, 53, 55-61, 63, 67, 69 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kokudo (US 5,978,361) in view of Allan et al. and further in view of Agarwal et al..

Regarding claim 39 and 53, Kokudo teaches receiving at one of more directional antennas 21 signals 201 transmitted from one or more subscribers. Kokudo, however, does not teach decoding said received signals into received data having said second-packet format; and reformatting said received data having said second-packet format into data having said first-packet format. Allan in view of Agarwal teaches decoding said received signals into received data having said second-packet format; and reformatting said received data having said second-packet format into data having said first-packet format (Column 8 Line 37-41, see Figure 3B). It would have been obvious to one skilled in the art to modify Kokudo to decode and receive data as taught by Allan in view of Agarwal in order to use the bandwidth more efficiently (Column 5 Line 12-15).

Regarding claim 55, Kokudo teaches a system comprising: one or more base stations 2 comprising: a radio frequency transmitter 23 to transmit in a radio frequency signal; and one or more customer premises equipment (CPE) stations 4 comprising: a radio frequency receiver 33 to receive the radio frequency signal. Kokudo, however, does not teach a segmentation module adapted to buffer data received in a plurality of first-format packets comprising common header addressing data and formatted according to a first format, said first format being a fixed length format; a MAC module adapted to: map at least some of said common addressing data to one of more fields of a second-

format packet based, at least in part, on said determined compression process; combine payload data of said first format packets in a payload of said second-format packet based, at least in part, on said determined compression process; and omit redundant common addressing data from said payload of said second-format packet; and a decoder to decode at least a portion of said second format packet based, at least in part, on said received radio frequency signal. Allan teaches a segmentation module adapted to buffer data received in a plurality of first-format packets comprising common header addressing data and formatted according to a first format, said first format being a fixed length format; a MAC module adapted to: map at least some of said common addressing data to one of more fields of a second-format packet (Column 7 Line 62-64); combine payload data of said first format packets in a payload of said second-format packet (Column 7 Line 60-62, see Figure 3A); and omit redundant common addressing data from said payload of said second-format packet (Column 7 Line 40-41 and Line 60-62); and a decoder to decode at least a portion of said second format packet based, at least in part, on said received radio frequency signal (Column 8 Line 37-41, see Figure 3B). It would have been obvious to one skilled in the art to modify Kokudo to translate data into more compact format as taught by Allan in order to use the bandwidth more efficiently (Column 5 Line 12-15). Kokudo in view of Allan, however, does not teach determining a compression process from among a plurality of compression processes. Agarwal teaches determining a compression process from among a plurality of compression processes [0118]. It would have been obvious to one skilled in the art to modify Kokudo in view of

Allan to determine a compression process from among a plurality of compression processes as taught by Agarwal in order to meet various performance specifications of the system [0118].

Regarding claim 56, Kokudo teaches back-haul connection 101 coupled to the one or more base stations 2 to provide one or more of the CPE stations 4 with access to an Internet service.

Regarding claim 57, Kokudo teaches a video server capable of providing a video service to at least one of said CPE stations 4 (Column 1 Line 13-17).

Regarding claim 58, Kokudo teaches at least one residential gateway 3 coupled to one of said CPE stations 4.

Regarding claim 59, Kokudo teaches at least one ATM switch 1 coupled to segmentation module to provide at least one ATM service to one or more of the CPE stations 4.

Regarding claim 60, Kokudo teaches the ATM switch is adapted to provide, at least one of a video service, a voice service and/or a data service to said one or more of the CPE stations 4 over said ATM switch (Column 1 Line 20-23).

Regarding claim 61, Kokudo teaches a sectored active antenna array 21 coupled to said radio frequency transmitter 23.

Regarding claim 63, Allan teaches said plurality of first format packets comprise ATM cells (Figure 3A).

Regarding claim 67, Kokudo teaches said second-format packet comprises a MAC packet, and wherein said MAC module is further adapted to derive a MAC header for said MAC packet based, at least in part, on said common header addressing data (Column 7 Line 62-64, see Figure 3A).

Regarding claim 69, Kokudo teaches said first-format packets comprise a first-format packet header, and wherein said MAC module is further adapted to:
map said first-format packet header to a header of said second-format packet (Column 7 Line 62-64); and omit said first format packet header from said payload of said second format packet (Column 7 Line 40-41 and Line 60-62).

Regarding claim 71, Kokudo teaches dispose a portion of first-format header addressing data common to said Incoming packets in a single field of said second-format packet (Column 7 Line 62-64, see Figure 3A).

Allowable Subject Matter

4. Claim 9, 11, 13, 15, 16-20, 23, 40, 54 and 72 are allowed.

5. Claim 4-8, 30-32, 34, 35, 37, 44-46, 48, 49, 51, 64-66, 68 and 70 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed February 21, 2007 have been fully considered but they are not persuasive. In response to pages 19-23, the applicant argues that Agarwal does

not disclose selecting a compression method from a plurality of selectable compression methods. Agarwal teaches "The VC Id field would either be the size of the entire VC field or could be the size specified in the header compression parameters" in line 2-5 [0118]. Agarwal also teaches the size of various fields being selectable in line 1-2 [0118] and the tradeoff due to the selection in line 7-16 [0118]. The examiner understood the different set of various fields' size as the plurality of compression method.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Friday 9 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C. H.

Clemence Han
Examiner
Art Unit 2616

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SUPERVISORY PATENT EXAMINER
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